

Application No. 10/805,928
Amendment 1.116
January 18, 2008

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 (currently amended). A write current circuit for a mass media write head, comprising:

a head write driver circuit adapted to drive the write head with a write current signal having a positive write edge and a negative write edge; and

a circuit coupled with the head write driver circuit and adapted to selectively provide:

- first pulsing signals which independently define overshoot amplitudes of said positive write edge and said negative write edge respectively of said write current signal, and

- second pulsing signals which independently define overshoot duration of said positive write edge and said negative write edge respectively of said write current signal.

Claim 2 (original). The write current circuit of claim 1, wherein said further circuit is a differential current source.

Claim 3 (original). The write current circuit of claim 2, wherein said differential current source is programmable.

Claim 4 (previously presented). The write current circuit of claim 1, wherein said further circuit is adapted to selectively provide a defined amplitude.

Claim 5 (original). The write current circuit of claim 4, wherein said further circuit is programmable for providing differential overshoot amplitudes for said positive write edge and said negative write edge.

Claim 6 (original). The write current circuit of claim 1, wherein said further circuit includes a delay circuit for selectively providing a defined pulse width for each of said overshoots.

Claim 7 (original). The write current circuit of claim 6, wherein said delay circuit is programmable for providing differential overshoot pulse widths for said positive write edge and said negative write edge.

Claim 8 (original). The write current circuit of claim 1, wherein said further circuit is adapted to selectively provide a defined amplitude of each of said overshoots and includes a delay circuit for providing a defined pulse width for each of said overshoots.

Claim 9 (original). The write current circuit of claim 8, wherein said further circuit and said delay circuit are programmable for providing differential overshoot amplitudes and pulse widths for said positive write edge and said negative write edge.

Claim 10 (currently amended). A write driver for an inductive head element in a disk drive system, said driver comprising:

- an H-bridge circuit capable of driving a first current and a second current through said head element;

- a boost circuit coupled with said H-bridge and operable for delivering a current pulse during time periods defining a positive edge of said first current and a negative edge of said first current responsive to a control signal, wherein a sum of said first current and said second current provides the write current for said head element; and

- said boost circuit is further adapted to selectively vary said positive edge current pulse and said negative edge current pulse; and

- a circuit coupled with the head write driver circuit and adapted to selectively

provide:

- first pulsing signals which independently define overshoot amplitudes of said positive write edge and said negative write edge respectively of said write current signal, and

- second pulsing signals which independently define overshoot duration of said positive write edge and said negative write edge respectively of said write current signal.

Claim 11 (original). The write driver of claim 10, wherein said boost circuit includes a programmable differential current source.

Claim 12 (original). The write driver of claim 10, wherein said boost circuit is further adapted to selectively provide a defined amplitude for each of said positive edge current pulse and said negative edge current pulse.

Claim 13 (original). The write driver of claim 12, wherein said boost circuit is programmable for providing differential amplitudes for said positive edge current pulse and said negative edge current pulse.

Claim 14 (original). The write driver of claim 10, wherein said boost circuit further includes a delay circuit for selectively providing a defined pulse width for each of said positive edge current pulse and said negative edge current pulse.

Claim 15 (original). The write driver of claim 14, wherein said delay circuit is programmable for providing differential pulse widths for said positive edge current pulse and said negative edge current pulse.

Claim 16 (original). The write driver of claim 10, wherein said boost circuit is further adapted to selectively provide a defined amplitude for each of said positive edge current

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pulse and said negative edge current pulse and further includes a delay circuit for selectively providing a defined pulse width for each of said positive edge current pulse and said negative edge current pulse.

Claim 17 (original). The write driver of claim 16, wherein said boost circuit and said delay circuit are programmable for providing differential amplitudes and pulse widths for said positive edge current pulse and said negative edge current pulse.

Claim 18 (currently amended). A method of providing a write current to an inductive head element in a disk drive system, comprising:

providing current pulses cooperable for independently defining a positive edge and a negative edge of said write current;

differentially varying respective amplitudes and durations of said positive edge current pulse and said negative edge current pulse for counteracting induced imbalances in said write current.

Claim 19 (previously presented). The method of claim 18 further comprising varying a pulse width of said positive edge current pulse and said negative edge current pulse for further counteracting induced imbalances corresponding to said disk drive system.